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313 N. Figueroa Street, Suite 912
Los Angeles, CA 90012

Tel: (213) 240-8101
Fax: (213) 481-0503

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*To ensure access to high-quality,
patient-centered, cost-effective
health care to Los Angeles County
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university partners.*



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May 19, 2015

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

**AUTHORIZE THE ACQUISITION OF HARDWARE FOR PHASE II OF THE
ENTERPRISE PATIENT DATA REPOSITORY PROJECT FOR THE
DEPARTMENT OF HEALTH SERVICES
(ALL SUPERVISORIAL DISTRICTS)
(3 VOTES)**

**CIO RECOMMENDATION: APPROVE (X) APPROVE WITH MODIFICATION ()
DISAPPROVE ()**

SUBJECT

Authorize the acquisition of hardware, software, and maintenance services to support expansion of the Department of Health Services' Enterprise Patient Data Repository Project.

IT IS RECOMMENDED THAT THE BOARD:

Authorize the Internal Services Division (ISD), as the County's Purchasing Agent, to proceed with the acquisition of additional hardware, related software, and maintenance services for the Department of Health Services (DHS) Enterprise Patient Data Repository (EPDR) project, with a total cost of approximately \$1,571,873.

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

24 May 19, 2015

PATRICK O'QUINN
ACTING EXECUTIVE OFFICER

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Background

DHS developed the EPDR to accommodate the significant changes resulting from both the new payment methodology under the current 1115 Waiver (Waiver), and the provisions of the Affordable Care Act (ACA) that impact DHS. New cost reporting requirements were imposed on DHS under the Waiver beginning January 1, 2014. Existing DHS data systems did not have the capability to comply with the new reporting requirements. Implementation of the EPDR provides the detailed data necessary to allow the Department to claim and maximize available Waiver revenues.

The EPDR project, comprised of two phases, utilizes specialized software purchased through existing County agreements with software vendors and professional services obtained through Work Orders under the Chief Information Office (CIO) Master Services Agreement (Agreement) No. 76043 with Oracle. Phase I was completed in April 2015 and produced a functional database that addresses the financial reporting requirements under the Waiver. Phase II will build on Phase I, and includes clinical data, such as laboratory test results and pharmaceuticals dispensed, provider empanelment assignments, clinic scheduling information, and productivity metrics.

Understanding that this project by its nature is a large and complex project, requiring a separate data-staging environment that is equal in size to the production environment is critical in ensuring that the EPDR is reliable and stable. The new stage environment will allow DHS to test changes and evaluate their respective behaviors prior to committing programming changes to the EPDR production environment. The addition of new data sources in Phase II, as well as the addition of a new stage environment will necessitate the purchase of additional hardware and corresponding licenses. The hardware will consist of additional computing power that will support a new stage environment and a (25%) growth of the production environment, as well as additional storage capacity to support data growth through phase II. The additional computing power and storage is in line with DHS' ability to scale up the existing computing environment, leveraging an initial technology investment under EPDR Phase I.

Recommendation

Approval of the recommendation will enable DHS to acquire the necessary hardware and software to store data submitted by both Phase I and Phase II. The hardware will consist of additional computing power that will support the new stage environment and a 25% growth of the production environment, as well as additional storage capacity to support data growth through Phase II. The additional computing power and storage is in line with DHS' ability to scale up the existing computing environment, leveraging the initial technology investment under EPDR Phase I.

Implementation of Strategic Plan Goals

The recommended action supports Goal 1, Operational Effectiveness/Fiscal Sustainability, of the County's Strategic Plan.

FISCAL IMPACT/FINANCING

The total aggregate cost for the additional equipment components and a three-year equipment maintenance agreement is \$1,571,873. Funding is included in the DHS Health Services

Administration (HSA) Fiscal Year 2014-15 final budget.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

On October 16, 2001, the Board approved the classification categories for fixed assets and new requirements for major fixed asset (now referred to as capital asset) acquisitions requiring County departments to obtain Board approval to acquire or finance equipment with a unit cost of \$250,000 or greater prior to submitting their requisition to ISD.

The CIO has reviewed this request and recommends approval. The CIO Analysis is attached (Attachment I).

CONTRACTING PROCESS

This is a commodity purchase under the statutory authority of the County's Purchasing Agent. This acquisition will be competitively bid by the County's Purchasing Agent in accordance with the standard County Purchasing Policies and Procedures established by ISD.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommendation will ensure that DHS is able to add new data sources, data marts, and reports to the EPDR in an effective and timely manner.

Respectfully submitted,



Mitchell H. Katz, M.D.

Director

Reviewed by:



RICHARD SANCHEZ

Chief Information Officer

MHK:RS:jm

Enclosures

c: Chief Executive Office
County Counsel
Executive Office, Board of Supervisors
Internal Services Department



RICHARD SANCHEZ
CHIEF INFORMATION OFFICER

Office of the CIO
CIO Analysis

NUMBER:

CA 15-08

DATE:

5/19/2015

SUBJECT:

**AUTHORIZE THE ACQUISITION OF THE HARDWARE FOR PHASE II
OF THE ENTERPRISE PATIENT DATA REPOSITORY PROJECT FOR THE
DEPARTMENT OF HEALTH SERVICES**

RECOMMENDATION:

☒ Approve☐ Approve with Modification☐ Disapprove

CONTRACT TYPE:

☐ New Contract☐ Sole Source☒ Existing Contract #: 76043☐ Other: Describe contract type.

CONTRACT COMPONENTS:

☒ Software☒ Hardware☐ Telecommunications☐ Professional Services

SUMMARY:

Department Executive Sponsor: Mitchell Katz, M.D., Director, Department of Health Services

Description: Department of Health Services (DHS) is requesting authorization for the Internal Services Department (ISD) to procure the hardware, related software, and maintenance services for Phase II of the Enterprise Patient Data Repository (EPDR) Project to be implemented in DHS' two Data Centers (Martin Luther-King (MLK) and Los Angeles County University of Southern California Medical Center (LAC+USC).

Contract Amount: \$1,571,873

Funding Source: DHS Fiscal Year (FY) 2014-15 Final
Budget

☒ Legislative or Regulatory Mandate☐ Subvened/Grant Funded: Enter %

**Strategic and
Business Analysis**

PROJECT GOALS AND OBJECTIVES:

The goal of EPDR Phase II is to implement processes to acquire and integrate meaningful clinical data from various hospital information systems into a single EPDR Data Warehouse.



BUSINESS DRIVERS:

When completed, EDPR will provide information and analytical capability to support three critical functions: revenue maximization; monitoring patient experience and quality of care; and optimizing resource use under a managed care capitation payment system.

PROJECT ORGANIZATION:

Dr. Anish Mahajan, Director of DHS System Planning, Improvement and Data Analytics, is the Project Sponsor and Irene Dyer is the Project Director. DHS established a governance committee comprised of clinical, financial, and technology representatives. The hardware installation and configuration will

	<p>be executed by the Operations and Infrastructure groups of DHS under the direction of Kevin Lynch, DHS CIO.</p>										
	<p>PERFORMANCE METRICS: EPDR hours operation and service support are as follows:</p> <ul style="list-style-type: none"> • Service Desk/Incident Management 24-hours/7-days a week; and • Problem Management 24-hours/7-days a week. 										
	<p>STRATEGIC AND BUSINESS ALIGNMENT: The Project supports Goal 1: Operational Effectiveness, Fiscal Sustainability, and Integrated Services Delivery of the County's Strategic Plan.</p>										
	<p>PROJECT APPROACH: DHS is acquiring, upgrading, and provisioning data center hardware – EMC storage upgrade and Cisco servers, in the LAC+USC and MLK Multi Service Ambulatory Care Data Centers. The new hardware will be implemented and thoroughly tested by the infrastructure team, with support from the vendor's professional services team.</p>										
	<p>ALTERNATIVES ANALYZED: None. The server blades and storage will be an expansion to an existing DHS infrastructure at LAC+USC and MLK.</p>										
Technical Analysis	<p>ANALYSIS OF PROPOSED IT SOLUTION: The requested servers and storage will support DHS' efforts to consolidate three data warehouses and to provide high availability and disaster recovery. The design of the integrated data model will eliminate the redundant of data and improve data quality. A summary of supplemental equipment included in this purchase is as follows:</p> <ul style="list-style-type: none"> • 105 additional Terabytes to be added to a EMC VNX 5400 SAN; • 135 additional Terabytes to be added to an existing EMC Data Domain 4500 (i.e., backup storage); and • Ten (10) UCS B200 M4 Blade Servers. <p>The hardware acquisition includes additional Oracle software licenses.</p>										
Financial Analysis	<p>BUDGET:</p> <p>Procurement costs</p> <table> <tr> <td>Hardware</td><td>\$ 971,750</td></tr> <tr> <td>Software</td><td>\$ 109,045</td></tr> <tr> <td>Services</td><td>\$ 191,760</td></tr> <tr> <td>36 months maintenance & support</td><td>\$ 299,318</td></tr> <tr> <td>Total</td><td>\$ 1,571,873</td></tr> </table>	Hardware	\$ 971,750	Software	\$ 109,045	Services	\$ 191,760	36 months maintenance & support	\$ 299,318	Total	\$ 1,571,873
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36 months maintenance & support	\$ 299,318										
Total	\$ 1,571,873										

Risk Analysis	<p>RISK MITIGATION:</p> <ol style="list-style-type: none"> 1. To mitigate service disruption resulting from a system outage or service interruption event, and to minimize the impact of data loss and data corruption, DHS will implement the following : <ul style="list-style-type: none"> • Backup and Recovery - The team will perform full backups of the EPDR environment nightly. • Disaster Recovery – At management’s direction, the team may implement technologies, such as Oracle Data Guard and EMC Recovery Point to allow EPDR data replication from the MLK Data Center to the LAC+USC Data Center • Active-active will be part of the software purchase and implementation. 2. The Chief Information Security Officer (CISO) reviewed the Acquisition and did not identify any IT security or privacy related issues.
CIO Approval	<p>PREPARED BY:</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;">  <hr/> Sanmay Mukhopadhyay, Sr. Associate CIO </div> <div style="text-align: center;"> <u>5-7-15</u> Date </div> </div> <p>APPROVED:</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;">  <hr/> Richard Sanchez, County Chief Information Officer </div> <div style="text-align: center;"> <u>5-7-15</u> Date </div> </div>

Please contact the Office of the CIO (213.253.5600 or info@cio.lacounty.gov) for questions concerning this CIO Analysis. This document is also available online at <http://ciointranet.lacounty.gov/>